

Appln. No. 10/783,060

Attorney Docket No. 10114-018

II. Remarks

Applicants thank Examiner Wu for the telephone interview on Wednesday, November 21, 2007.

Claims 1-18 are rejected and pending. With the remarks provided below, Applicants respectfully request reconsideration and a withdrawal of all rejections and objections.

Responsive to the finding of the defective oath or declaration, a new oath or declaration in compliance with 37 C.F.R. 1.67(a), including the post office address for inventor Esin Gulari, is attached hereto.

Claim Rejections - 35 U.S.C. §112

Responsive to the rejections of claims 1-18 under 35 U.S.C. § 112, second paragraph, for lack of clarification of what is meant by "catastrophically depressurizing" as recited in claims 1, 15, 16, and 18, Applicants assert that "catastrophically depressurizing" is clearly defined in paragraph [0039] of the specification of the present application. As recited in paragraph [0039], catastrophically depressurizing comprises "immediately depressurizing the vessel down to a considerably lower pressure."

Claim Rejections - 35 U.S.C. §102(e) and 35 U.S.C. §103(a)

Responsive to the rejections of claims 1-6 and 10-16 under 35 U.S.C. § 102(e), as being anticipated by U.S. Patent No. 7,157,517 to Gulari et al. (*Gulari*), and the rejections of claims 1-2, 4, 6, and 10-16 under 35 U.S.C. 103(a) as being unpatentable over *Gulari*, Applicants assert that *Gulari* is disqualified as a reference under 35 U.S.C. 103(c) because *Gulari* and the present application were, at the time of the invention of the present application, commonly owned by Wayne State University. Further responsive to the rejections of claims 7-8 and 17-18 under 35 U.S.C. 103(a) as being unpatentable over *Gulari* in view of U.S. Patent Application No. 2004/0127621 to Drzal et al. (*Drzal*), Applicants assert

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that *Gulari* is disqualified as a reference for the reasons stated above. Accordingly, reconsideration of the rejections of claims 1-8 and 10-18 is respectfully requested.

Responsive to the rejections of claims 1, 4, 6-11, and 13 under 35 U.S.C. § 102(e), as being anticipated by U.S. Patent No. 6,753,360 to Mielewski et al. (*Mielewski*), and the rejections of claims 1, 4, and 6 under 35 U.S.C. 103(a) as being unpatentable over *Mielewski*, Applicants assert that *Mielewski* does not teach or suggest all of the elements of independent claim 1. For example, claim 1 of the present application recites "diffusing a coating agent in a substantially supercritical fluid between the aggregated particles." *Mielewski* does not teach or suggest "diffusing a coating agent" as recited in claim 1 of the present application. Specifically, *Mielewski* teaches a method of generating a reinforced polymer by providing particles of layered silicate and a supercritical fluid and mixing the layered silicate particles with a polymer. Although the "coating agent" disclosed in the present application may be a polymer (see claim 4), the "diffusing a coating agent in a substantially supercritical fluid between the aggregated particles" as recited in the present application is not the same as the "mixing the layered silicate particles with a polymer" as disclosed in *Mielewski*.

Moreover, "diffusing" is quite different than "mixing." For example, in the present application, when the coating agent solubilizes in the supercritical fluid, the coating agent diffuses between the aggregated particles. The term "diffuse" may be equated to "expands" or "swells." (See specification, paragraph [0036]). The "diffusing of the coating agent" between the aggregated particles in the present application does not require an external mechanism. Rather, the coating agent, by its own properties, moves or expands between the aggregated particles.

On the other hand, the "mixing" disclosed in *Mielewski* requires an external mechanism, such as an extruder, to mix or stir the layered silicate and the polymer throughout. As the mixing process in *Mielewski* is a mechanical mixing process, no "diffusing of a coating agent" is taught therein.

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Thus, *Mielewski* does not teach or suggest "diffusing a coating agent in a substantially supercritical fluid between the aggregated particles" as recited in claim 1 of the present application. Since claims 4, 6-11, and 13 generally depend from claim 1, claims 4, 6-11, and 13 are allowable for the reasons provided above.

Accordingly, reconsideration of the rejections of claims 1, 4, 6-11, and 13 and the allowance of claims 1-18 are respectfully requested.

Double Patenting

Responsive to the rejections of claims 1, 2, 4, 6, and 10-16 under the judicially created doctrine of double patenting, as being unpatentable over Gulari, a terminal disclaimer in compliance with 37 C.F.R. 1.321 will be filed during the pendency of the present application. Further responsive to the rejections of claims 1, 4, and 6 under the judicially created doctrine of double patenting, as being unpatentable over *Mielewski*, *Mielewski* fails to teach or suggest each and every element as claimed in the present application. For at least the reasons provided above, the present application is patentably distinct from *Mielewski*. Accordingly, Applicants request withdrawal of the double patenting rejections as moot.

Thus, claims 1-18 are in a condition for allowance and such action is earnestly solicited.

Conclusion

In view of the above remarks, it is respectfully submitted that the present form of the claims (claims 1-18) are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is respectfully requested.

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Respectfully submitted,


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Attachment: Declaration

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